Section Eight Mitigation Action Plan

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8.1 IFR Requirements for Mitigation Action Plan

Section §201.4(c)(3) of the IFR states that "[to be effective, the plan must include] the State's blueprint for reducing the losses identified in the risk assessment."

Note: The IFR refers to this "blueprint" as a "Mitigation Strategy". However, as described in Section One, the State of Louisiana uses that phrase to encompass all aspects of hazard mitigation planning and programs. The State refers to this part of the documentation as the "Mitigation Action Plan".

The IFR includes three specific requirements that relate to the development of a Mitigation Action Plan for the State of Louisiana:

- Hazard Mitigation Goals per Requirement §201.4(c)(3)(i): "[The State shall include a] description of State goals to guide the selection of activities to mitigate and reduce potential losses."
- Mitigation Actions per Requirement §201.4(c)(3)(iii): "[State plans shall include an] identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy."
- Funding Sources per Requirement §201.4(c)(3)(iv): "[The State mitigation strategy shall include an] identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities."

The Mitigation Action Plan goes beyond the minimum IFR requirements by developing a tentative timeframe for implementing these actions and determining the responsible parties for the individual actions listed below. While the Mitigation Action Plan identifies actions to be taken primarily by the OHSEP and the SHMPC over time, interactions and participation by other state agencies is also considered an important part of the program.

The information in this section is presented as follows:

- Goals and Objectives;
- Plans of action to meet the Goals and Objectives;
- Evaluation of action items;
- Prioritization of action items; and
- Identification of potential funding sources.

8.2 Goals and Objectives

As explained in Section One, the State has set to work implementing a Hazard Mitigation Strategy of which this Plan is a key part. The Strategy has a common guiding principle as expressed through the mission statement:

Louisiana's Hazard Mitigation Strategy is the demonstration of the State's commitment to reduce risks from hazards, and serves as a guide for State decision makers as they commit resources to reducing the effects of hazards.

To help implement this Strategy and adhere to this mission statement, preceding sections of the Plan have been focused on identifying and quantifying the risks faced by the residents and property owners in the State of Louisiana from natural and manmade hazards. By articulating goals and objectives, the Plan sets the stage for identifying, evaluating and prioritizing actions to be promoted at the local and parish level and to be undertaken by the State for its own property and assets. For the purposes of this Plan, goals and objectives are defined as follows:

- Goals are general guidelines that explain what the State wants to achieve. Goals are expressed as broad policy statements representing desired long-term results.
- Objectives describe strategies to attain the identified goals. Objectives are more specific statements than goals; the strategies are usually measurable and can have a defined completion date.

The goals and objectives were based on the findings of the Statewide Risk Assessment (Section Five) and the Risk Assessment for State-Owned Assets (Section Six). The SHMPC identified preliminary goals and objectives during a facilitated "brainstorming" session the week of August 4, 2004. The SHMPC reviewed and refined the goals and objectives at working sessions held on September 22-23 and December 1-2, 2004. Representatives of the OHSEP and members of the SHMPC participated. Table 8-1 lists the goals and objectives developed by the SHMPC:

Table 8-1: State of Louisiana Hazard Mitigation Plan - Goals and Objectives

- Goal 1: The State of Louisiana will improve outreach and educational efforts regarding potential impacts of hazards and the identification of specific measures that can be taken to reduce their impact.
- 1.1 Objectives for Statewide outreach and education efforts:
- Increase the awareness and understanding of the advantages of mitigation of the general public and local government officials.
- Increase local government official awareness about funding opportunities for mitigation.
- 1.2 Objectives for outreach and education efforts for state agencies:
- Increase the awareness and understanding of the advantages of mitigation of state agency heads.

Goal 2: The State of Louisiana will improve data collection, use and sharing to reduce the impacts of hazards.

- 2.1 Objectives for statewide data-related efforts:
- Improve data available to parishes and communities for use in future planning efforts.
- Provide parish and local officials and local practitioners with educational opportunities and information regarding available tools to effectively use risk and related data.
- Improve communication of updated data and information from parishes and communities to the OHSEP.
- 2.2 Objectives for data related efforts for state agencies:
- Improve data available to state agencies for use in future planning efforts.
- Improve communication of updated data and information from state agencies to the OHSEP and the SHMPC.

Goal 3: The State of Louisiana will improve the level of interagency coordination to develop coherent policies and plans and pursue funding sources to reduce the impacts of hazards.

- 3.1 Objectives for supporting local hazard mitigation planning:
- Support hazard mitigation planning at the local and parish level.
- Integrate local mitigation plans into the *State of Louisiana Hazard Mitigation Plan* as part of periodic monitoring, evaluating and updating of the Plan.
- Support increased NFIP / CRS participation.
- 3.2 Objective for supporting state agency hazard mitigation planning:
- Provide information regarding techniques for state agencies to undertake detailed vulnerability and risk assessments for their own planning efforts and prioritization of funding.
- 3.3 Objective for providing technical assistance:
- Provide technical assistance to local communities, parishes and state agencies regarding best practices for mitigation.
- Goal 4: The State of Louisiana will pursue opportunities to reduce impacts to the State's manmade and natural environment through construction projects.
- 4.1 Objective for identifying cost effective, environmentally sound and technically feasible projects:
- Facilitate development and administration of project applications that will meet state and Federal guidelines for funding.
- 4.2 Objectives for State-owned assets:
- Harden and retrofit infrastructure and critical facilities with highest vulnerability rankings.

8.3 Identification of Mitigation Actions

As identified in Section 8.1, the Mitigation Action Plan focuses on actions to be taken by OHSEP and the SHMPC. While other agencies and organizations are referenced in the discussion that follows, specific commitments by agencies other than OHSEP must be secured as part of the process of implementing the Plan. It is also important to note that the mitigation actions identified below are activities (education, training, facilitating, etc.) as opposed to "bricks and mortar" projects. As such, demonstrating cost effectiveness is difficult. The costs can be quantified but the specific benefits are more ephemeral. However, all of the activities in this Mitigation Action Plan will be focused on helping local communities, parishes and State agencies in developing and funding projects that are not only cost effective but also meet the other DMA criteria of environmental compatibility and technical feasibility.

Goals and objectives from Section 8.2 are repeated below and a Plan of Action is described for each coherent set of objectives. In some cases, one plan of action addresses multiple objectives while some objectives are associated with a small set of specific action items. It is also important to note that the actions listed below are considered by OHSEP and the SHMPC as the appropriate steps to meet their goals and objectives. However, it will clearly take more than three years – the planning horizon identified in DMA 2000 - to implement the listed actions even under the best of conditions. Therefore, the SHMPC undertook a process to prioritize and schedule these actions by defining a logical sequence and identifying realistic expectations of what will be possible in the next three years. However, the entire list is established and recorded for future reference as the Plan is updated and refined over time.

Table 8-2: Identification of Mitigation Actions

Goal 1: The State of Louisiana will improve outreach and educational efforts regarding potential impacts of hazards and the identification of specific measures that can be taken to reduce their impact.

- 1.1 Objectives for statewide outreach and education efforts:
- Increase the awareness and understanding of the advantages of mitigation of the general public and local government officials.
- Increase local government official awareness about funding opportunities for mitigation.

Plan of Action to address 1.1 Objectives for statewide outreach and education efforts:

A. <u>Define and support implementation of a public outreach and education program</u> to advise residents, business owners, potential property buyers, visitors and government officials about hazards, hazardous areas and mitigation techniques they can use to protect themselves and their property. For example, measures used to educate and inform the public include: existing state websites, toll-free "hot-line" information services, Public Service Announcements (PSAs), speaker series, demonstration events, insurance and real estate disclosures, and training.

The specific action items include:

i. Develop and implement a staffing plan for statewide outreach and education efforts. Per the summary analysis in Section Seven, staffing levels at OHSEP have barely been adequate to address grant administration responsibilities in the past and the agency would not be able to meet time commitments for an increased public outreach and education effort without additional staff positions. At the time this Plan was developed, OHSEP had initiated steps to increase staff dedicated to mitigation programs. OHSEP is in the process of developing job descriptions and responsibilities to reflect anticipated grant administration workloads and to support the recommendations of this Plan including designating responsibility for outreach and education efforts ²². In addition, OHSEP will determine and periodically refine funding needs to address statewide outreach and education efforts.

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²² Volume IV of the State of Louisiana Hazard Mitigation Strategy, Administrative Guidelines and Procedures includes up to date information about OHSEP staffing.

- ii. Identify existing public information resources and programs conducted by state agencies related to hazard mitigation. The intent is to make sure all relevant aspects of hazard mitigation are covered in a statewide public information program; capitalize on efforts that have already been initiated; and avoid duplication of efforts. Examples of on-going efforts for specific hazards include:
 - Flood including DOTD efforts to develop the Louisiana Floodplain Management Desk Reference / EZ Guide in cooperation with FEMA, and the LouisianaFloods.org website hosted by the LSU AgCenter; and
 - Subsidence including DNR efforts to develop public awareness regarding the Coast 2050 program via the USACE Louisiana Coastal Area Ecosystem Restoration Study.
- iii. Explore options and create tools to use in outreach efforts including:
 - Presentations at regularly scheduled events that attract target audiences (e.g., the annual conference of local EMA directors, the Louisiana Association of Floodplain Managers, etc.);
 - Periodic video conferences to provide updates and general training for broad audiences;
 - Identifying mitigation options for flood insurance policy holders as part of notification requirements under the Flood Insurance Reform Act of 2004; and
 - Facilitating the connection between EMA's both between and within parishes to foster the sharing
 of information. For example, there are usually different agencies within each parish that have
 responsibilities for building code enactment and enforcement, local land use planning, etc.
- iv. Identify and solicit support and participation by other state agencies and parties that may have an interest in public outreach and education efforts for selected hazards and/or an established method for communicating this type of information to address other gaps in the program. Examples of non-state agencies with access to parishes and communities throughout the state include the Louisiana Association of Planning and Development Districts and the Louisiana Municipal Association.
- v. Work with Public Information Officer(s) within OHSEP and other state and local agencies to develop and distribute a common message to accompany public outreach and education efforts related to hazard mitigation. The basic theme of this message is to develop public awareness of a full range of hazards; identify common resources and methods to address these hazards; and provide state agency and interested party contacts for further information. The intent is to take advantage of as many avenues as possible to impart useful information to the public and to make sure the efforts of state agencies are as coordinated as possible. The intent is **not** to develop a "one size fits all" information program that all state agencies would have to use and apply in all situations. One "kick-off" possibility would be to sponsor a contest among school age groups and/or interested parties to develop a "catch phrase" to use in hazard mitigation outreach efforts. The contest could include development of a poster or web posting that would show how the phrase could be used as a backdrop for different mitigation-related messages.
- vi. Develop and distribute materials to partner agencies and interested parties to support delivery of the message including website postings, presentations, brochures, posters, etc.
- vii. Periodically seek feedback from partner agencies and interested parties to determine needs for additional information, and alternative methods to seek additional audiences (e.g., school programs, university degree programs in planning, etc.). Note: This will be most effective if a baseline level of understanding of basic mitigation concepts and available resources is determined at the outset of the outreach and education efforts.

- Goal 1: The State of Louisiana will improve outreach and educational efforts regarding potential impacts of hazards and the identification of specific measures that can be taken to reduce their impact.
- 1.2 Objectives for outreach and education efforts for state agencies:
- Increase the awareness and understanding of the advantages of mitigation of state agency heads.

Plan of Action to address 1.2 Objectives for outreach and education efforts for state agencies:

- B. <u>Develop and implement an "internal" state agency mitigation information sharing program (parallel to the public outreach and education program under Plan of Action A.) including the following:</u>
 - i. Develop and implement a staffing plan for outreach and education efforts with state agencies.²³ Part of the staffing plan for OHSEP (as identified under Plan of Action A) should include on-going training to increase capabilities of individual staff and to stay abreast of current programs and policies. These training sessions should also be available to members of the SHMPC.
 - ii. Solicit and secure participation by state agencies that are not already member agencies on the SHMT or represented on the SHMPC (especially those identified in the Plan as having critical facilities at risk) including establishing contact people and preferred methods for future exchanges of information.²⁴
 - iii. Provide results of the Risk Assessment for State-Owned Assets (per Section Six and Volume II, Appendix F) and recommended procedures for "ground-truthing" information (see related information under the Plan of Action D under Goal 2) to participating state agencies. Procedures should be supported by "job-aids" that could include reference materials, assessment criteria, and checklists for buildings and State-owned assets.
 - iv. Work with State agencies to identify existing plans and planning efforts that could be enhanced through integration with the State Hazard Mitigation Planning updates.

Goal 2: The State of Louisiana will improve data collection, use and sharing to reduce the impacts of hazards.

- 2.1 Objectives for statewide data-related efforts:
- Improve data available to parishes and communities for use in future planning efforts.
- Provide parish and local officials and local practitioners with educational opportunities and information regarding available tools to effectively use risk and related data.
- Improve communication of updated data and information from parishes and communities to the OHSEP.

Plan of Action to address 2.1 Objectives for statewide data enhancement efforts:

C. <u>Support implementation of a coordinated approach to statewide data collection, use and sharing</u> since the mitigation planning process is fueled by data and the quality of the results are tied to the quality and quantity of available data. One of the basic concepts behind DMA 2000 requirements is the sharing of data between states and local governments to enrich planning at both levels. Although much has been accomplished, there are still a number of data deficiencies indicated in the Plan that limit the utility of local, parish and state planning efforts. To address these limitations in the most cost effective way, this plan of action builds on previous efforts as much as possible and looks for opportunities for gathering data that will prove useful to a wide range of users.

²³ As part of the same effort identified under Action Item A.i., et al.

²⁴ This process has already been initiated as described in Section 3.3 - Coordination among Agencies and Interested Parties.

- i. Develop and implement a staffing plan for statewide data improvement efforts.²⁵ In addition, as part of subsequent steps in this plan of action, determine and periodically refine funding needs to address specific data deficiencies.
- ii. Work with parish and local officials to make sure that all parties understand what data already exists or will be available for their use within reasonable timeframes. One example of flood-related data that will be available soon is work by the University of New Orleans that was on-going as this Plan was developed. This work, funded by FEMA, is intended to create a comprehensive GIS and database of repetitive loss properties in the State of Louisiana.

As part of this effort, it will be important to explain what can and cannot be done with specific data. For example, parish officials already have access to some lists of repetitive loss properties within their jurisdictions. This includes information about property owners that is considered confidential under the Privacy Act. If local officials do not place the proper restrictions on access to certain parts of this information, they can seriously diminish the effectiveness of future efforts to acquire or pursue mitigation for these properties.

- iii. Encourage parish and local officials to "ground-truth" data and results from the Plan. The process could be conducted by the appropriate public entity, private sector, or academia, or a combination of all three. The planning process to date has been effective by using existing information. However, to provide the best results for reducing the impact of natural and manmade hazards over time, it is important to enlist the help of local officials to:
 - Validate and improve wherever possible on the study methodology;
 - Disseminate and collect information from local governments and other state agencies; and
 - Support the process of identifying appropriate eligible mitigation projects at the parish level and within other state agencies.

For example, per Section Five (and Volume II, Appendix E), the HAZUS-MH local critical facilities inventory was currently the best data available to the State to conduct a statewide risk assessment of the potential impacts on these facilities. However, this data was assembled "second hand" from available data listings that can quickly become outdated. To attain more useful results for future assessments, it is recommended that the data be reviewed and verified by local governments to ensure that the information used in this Plan reflects:

- whether critical facilities that are in the HAZUS-MH data base still exist;
- the existence of facilities that have been recently constructed (that may not show up in records used to compile the HAZUS-MH database);
- accurate georeferenced locations (i.e., latitude and longitude) of critical facilities if available; and
- other relevant attributes (e.g., first floor elevations of structures that are prone to flooding).

At the same time, it would be possible to encourage local governments to collect additional information in a uniform and consistent manner. The ground-truthing efforts could entail site visits, or if the local governments already had an up-to-date list of facilities with the address and cost (hopefully as part of their parish or local level mitigation planning efforts), their mapping software could be used to determine a geographic location without the need of re-collecting the data.

Similar to Action Item B.iii, OHSEP could support the process by providing templates of data collection forms with guidance for issues to look for based on the types of hazards. Alternative means of ground-truthing the statewide data are broadly drawn as follows:

 $^{^{\}rm 25}$ As part of the same effort identified under Action Item A.i. et al.

- Web site portal Encourage Louisiana state agencies with responsibility for data management to develop a data portal for entering and exchanging data about critical facilities. This would result in a dynamic population of data that could be used in risk assessment models without a lot of manipulation and reformatting of the data. OHSEP could send correspondence to the local governments to explain the purpose and intended outcomes, the process for downloading existing data for their parish, ways to ground-truth the data, and how to upload/enter the data into the portal. The web site would include helpful information about the overall process and existing data (e.g., year collected/updated, projection, etc.). This could also be part of a system whereby the local communities access data from the state. The highest degree of success might be to introduce the web site and its operation by conducting a workshop with local governments to explain the process. To hold down costs and use resources most efficiently, this could be done at a routinely scheduled state workshop or a series of area coordinator meetings.
- Written correspondence Send a letter and CD-ROM with existing critical facilities data to each
 parish with an explanation of the process. Request that each parish ground-truth their data and email it to a central point of contact at the State who would have responsibility for compiling all of the
 data into a State-owned / or maintained database.
- iv. Provide and support data management training for parish and community officials in concert with general outreach and education efforts under Plan of Action A. For example, FEMA recently developed a Risk Assessment Workshop that is targeted to local communities that do not have high capabilities or extensive data sets but still want and need useful risk assessment results. OHSEP should work with FEMA Region VI to have the workshop delivered for targeted local communities and to seek training for OHSEP staff and other interested parties (such as local planning and engineering firms) to conduct subsequent trainings.
- v. Integrate data from local risk assessments into future updates of the Plan. Sections 9.3 and 10.2 of the Plan include specific steps that the OHSEP and SHMPC will undertake in working with parishes and local communities to evaluate and integrate information from local plans into the Plan to be in compliance with DMA 2000 requirements.
- vi. Continue efforts to obtain improved data for use in future updates of the State Hazard Mitigation Plan including:
 - Information regarding levees under the jurisdiction of the Vicksburg District of the USACE;
 - New data regarding subsidence rates under development by NOAA's National Geodetic Survey and the Louisiana Spatial Reference Center at LSU;
 - Storm Surge regarding previous occurrences; and
 - Probability of future events for levee failure.

Goal 2: The State of Louisiana will improve data collection, use and sharing to reduce the impacts of hazards.

- 2.2 Objectives for data related efforts for state agencies:
- Improve data available to state agencies for use in future planning efforts.
- Improve communication of updated data and information from state agencies to the OHSEP and the SHMPC.

Plan of Action to address 2.2 Objectives for data related efforts for state agencies:

D. <u>Support implementation of a coordinated approach to data collection, use and sharing for State agencies</u> to validate and disseminate results of the Risk Assessment for State-owned Buildings, Critical Facilities and Infrastructure similar to the Statewide Risk Assessment results addressed in Plan of Action C. For example, the critical facilities in Louisiana with the ten highest combined loss estimates for each hazard as

summarized in Section Six (and detailed in Volume II, Appendix F) should be verified by ground-truthing to determine if the loss estimate methodologies are reasonable and to gather more detailed information to help facility managers and the State of Louisiana determine what the best course of action will be in terms of mitigation.

- i. Develop and implement a staffing and funding plan for data improvement efforts with state agencies.²⁶
- ii. Encourage state agency heads and facility managers to "ground-truth" data and results from the Plan. The processes and methodology for identifying and profiling hazards and determining the loss of function for state-owned facilities has been detailed in Section Six and Volume II, Appendix F. The methodology provided the State with a ranking for all facilities that had previously been identified as critical in the State's Facility Management database. Using the criticality for each structure, along with vulnerability to a particular hazard, loss of function, physical damage, and content damage, the SHMPC determined the facilities with the highest loss estimates for each hazard and the combined loss estimates for all hazards.

Once determined, a list was generated that will allow the State to not only identify individual facilities at risk, but assign priorities for future mitigation actions. This list will give the State a defined agenda on which structures should be investigated to see if the overall process and methodologies are sound.

Better data will improve the process. Data can be defined as many things. For this process data can be:

- An updated Facility Management database with accurate information that has been verified by the State including confirming actual ownership and/or responsibility for each facility;
- Improved information about a given hazard, such as accurate flood data for the State that will help determine the base flood elevation for a given structure;
- Base map data, such as contours and soils; and
- Hazard histories for individual facilities.

Better data and better accuracy will support the process and methodology in which the responsible parties will be able to investigate highest ranked critical facility on the list and either provide proof of the need for further mitigation actions or move a facility off the list.

For example, the appropriate state agency and/or facility manager could capture the following information for future use:

- First floor elevations (for flood-prone properties);
- Physical location (i.e., more than just the street address to allow for positioning the structure or asset relative to known hazard boundaries; for this purpose, the actual latitude and longitude of the structure is preferred);
- Number of stories;
- Roofing material;
- Exterior facade:
- Building use and function; and
- Digital photos of structure and surroundings.

Once this information is collected for each facility, and stored in a database such as the Facilities Management database, the SHMT and/or the facility staff can use this information to validate the original risk assessment results and identify and prioritize possible mitigation actions for facilities clearly at risk.

²⁶ As part of the same effort identified under Action Item A.i. et al.

Note: It may not be practical due to resource limits to secure all the desired data in one step. It may prove more effective to add a few data fields each year for each facility, starting with the more important aspects like physical location and gradually build up an improved data record. As mentioned in preceding plans of action, OHSEP can provide effective technical support via "job-aids" to help capture the right information and enable consistent data entry.

iii. Support a centralized data repository accessible to state and local agencies as well as interested parties. The Louisiana Geographic Information System Council (LGISC) has been working toward a similar end for all data related issues in the State. OHSEP, as a voting member of LGISC, can request that LGISC establish regular procedures for receiving more detailed information from state agencies that can be used in required regular updates to the Plan (see Section Ten).

However, much like the proposed work with local communities and parishes, the desired long term result is to help position individual state agencies and facility managers to maintain their own information and plans regarding their own facilities. Since OHSEP and the SHMPC have some responsibility for oversight and coordination of these data collection efforts per the requirements of DMA 2000 to maintain eligibility as a "Standard" program and to attain and maintain "Enhanced" status, they can help to identify desired types of information to LGISC so that provisions can be made in terms of database development and maintenance by the appropriate state agency.

This effort should also include making sure that the definitions used for various data are as consistent as possible. For example, in determining the physical locations of State-owned structures, it may be most effective to use the same procedures for determining longitude and latitude as the on-going work at the University of New Orleans to develop the repetitive loss property database (see Action Item C.iii.). Also, OHSEP intends to use HAZUS in the future so procedures for enhancing data should be consistent with HAZUS protocols.

Key types of information that have already been identified include:

- Records of disaster damages;
- Spatial locations for specific facilities;
- Status and details regarding mitigation projects (related to on-going efforts by OHSEP to establish
 a database to track progress and status of Federally funded mitigation grants (see Administrative
 Guidelines and Procedures in Volume IV).

Goal 3: The State of Louisiana will improve the level of interagency coordination to develop coherent policies and plans and pursue funding sources to reduce the impacts of hazards.

- 3.1 Objectives for supporting local hazard mitigation planning:
- Support hazard mitigation planning at the local and parish level.
- Integrate local mitigation plans into the State of Louisiana Hazard Mitigation Plan as part of periodic monitoring, evaluating and updating of the Plan.
- Support increased NFIP / CRS participation.

Plan of Action to address 3.1 Objectives for supporting local mitigation planning:

E. Provide technical support to local communities and parishes for on-going and continuing local hazard mitigation planning efforts. The majority of Louisiana parishes are in the midst of completing the first round of DMA 2000 compliant local hazard mitigation plans. Those communities that have not yet finished their plans are currently ineligible for Federal HMGP funding as described in previous sections. It is a priority of OHSEP and the SHMPC to get these plans completed and approved as guickly as possible.

However, upon completion of the plans, OHSEP and SHMPC will need to keep the communities and parishes focused on improving any deficiencies in their plans and on implementing the appropriate recommendations. Specific action items include:

- i. Continue to provide plan reviews and technical support to communities and parishes already working on local plans to gain FEMA approval as soon as possible.
 - Note: on-going work to increase OHSEP staffing and defining responsibilities for public outreach and education efforts (per Plan of Action A.i.) will include continuing current levels of OHSEP support for this type of related technical activities.
- ii. Identify and work with local communities and parishes that have not yet undertaken mitigation plans to apply for grant funding and pursue completion of a plan.
- iii. Work with local communities and parishes that complete and gain FEMA approval for their plans to diligently monitor, evaluate and update their mitigation plans over the next five year cycle²⁷.
 - Note: Since it is a substantial task to work with all the parishes simultaneously, the OHSEP and SHMPC is considering setting up local plan updates on a rotating basis (e.g., 10 15 parish plans would come up for review and formal update each year). This would allow the State to spread funding and resource demands out over time but would require that some parishes undertake an update and review of their plan before the five year "expiration date" of their approval from FEMA. In all likelihood, there are parishes where this will occur naturally due to availability of improved data before the 5-year cycle is over (e.g., via the University of New Orleans study cited above) or disaster declarations that provide funding opportunities and revised estimates of losses.
- iv. Identify and encourage parishes and communities that would benefit most from increased participation in the NFIP to do so. For example, the results of the Statewide Risk Assessment in Section Five and Volume II, Appendix E can be used to identify parishes at relatively high risk to floods that are either non-participants or have low CRS rankings.
- Goal 3: The State of Louisiana will improve the level of interagency coordination to develop coherent policies and plans and pursue funding sources to reduce the impacts of hazards.
- 3.2 Objective for supporting state agency hazard mitigation planning:
- Provide information regarding techniques for state agencies to undertake detailed vulnerability and risk assessments for their own planning efforts and prioritization of funding.

Plan of Action to address 3.2 Objective for supporting state agency hazard mitigation planning:

- F. Provide technical support to state agencies for on-going and continuing mitigation planning. State agencies can be subgrantees under hazard mitigation grant programs such as HMGP, and PDM-C and can develop their own agency-specific DMA compliant plans that can be treated as annexes to this Plan. To do so for all state agencies would require an unjustifiable commitment of time for both the agencies and OHSEP. However, for the larger institutions and/or agencies with multiple facilities at risk, this may be a logical way to proceed to address their specific needs.
 - i. In addition to improving the flow of data as described in Plan of Action D., additional follow-up training and technical support should be provided to interested state agencies to help them develop, maintain and implement hazard mitigation plans for their facilities. This support can take the form of:
 - helping state agencies prepare HMGP and PDM planning grant applications (see Volume IV of the State of Louisiana Hazard Mitigation Strategy, the Administrative Guidelines and Procedures);
 - sharing existing data and methodologies; and
 - providing plan reviews at key milestones in the process.

Although DMA 2000 requires the State Plan to be updated and reapproved every three years, local and/or parish plans are only required to be updated and reapproved every five years.

- ii. Educate the State Legislature to establish a State Hazard Mitigation Fund that would provide a state source of pre-disaster hazard mitigation funding to supplement Federal and local sources. Louisiana statutes prohibit state funding for projects on private property²⁸. However, there are myriad needs for funding public entities' hazard mitigation needs that such a fund would help satisfy.
- iii. Pursue the designation of Reserve Funds as part of Implementation Strategies for post-disaster HMGP funding (see Administrative Guidelines and Procedures in Volume IV). Reserve Funds would be used for an established list of funding needs (for example, presentation materials for public outreach efforts per Plan of Action A) that could be met by relatively small set-asides in the total hazard mitigation funding.

Goal 3: The State of Louisiana will improve the level of interagency coordination to develop coherent policies and plans and pursue funding sources to reduce the impacts of hazards.

- 3.3 Objective for providing technical assistance
- Provide technical assistance to local communities and parishes regarding best practices for mitigation.

Plan of Action to address 3.3 Objective for providing technical assistance:

- G. Support adoption, implementation and enforcement of higher regulatory standards at the local community and parish level by developing and delivering technical assistance focused on improving the way local communities and parishes approach hazard mitigation. Local governments have multiple potential points of contact with hazard mitigation in their communities. Other objectives under this goal address how communities pursue hazard mitigation directly through their own construction projects. This objective and plan of action address the ways communities can improve the manner in which future development occurs including:
 - i. Promote adoption and enforcement of comprehensive planning, zoning (i.e., land development regulations at the local/parish level) and floodplain ordinances.
 - ii. Support adoption of a statewide building code (by seeking support at the community and parish level first).

Goal 4: The State of Louisiana will pursue opportunities to reduce impacts to the State's manmade and natural environment through construction projects.

- 4.1 Objectives for identifying cost effective, environmentally sound and technically feasible projects:
- Facilitate development and administration of project applications that will meet state and Federal guidelines for funding.

Plan of Action to address 4.2 Objective for identifying cost effective projects:

- H. Work with communities, parishes and state agencies to identify, fund and implement cost effective projects.

 One of the main purposes of the DMA 2000 was to improve the quality of hazard mitigation projects funded by the Federal government. In this context, "quality" is virtually synonymous with "cost effective".
 - i. Indicate preferred projects that address hazards identified in the Plan. Volume II, Appendix H (Best Practices for Mitigation in the State of Louisiana) provides detailed descriptions of recommended mitigation actions that local communities and parishes can undertake to work with the State in achieving the goals and objectives.

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²⁸ IAW Article VII, Section 14 of the Louisiana Constitution of 1974.

It is important to note that in this compendium of successful techniques, there are alternatives for mitigation actions that must be evaluated by each community for each situation to determine the best choice. However, the listing and background information indicate to the communities what the State perceives as choices that are most likely to be successful.

- ii. Provide education at the local level regarding project application "best practices" (which correlates with action items already described for Goals 1 and 2). Education and training should reflect on-going improvements by OHSEP to the mitigation grant project application review and approval processes (which are documented in Volume IV) including project review criteria that respond to the results of the Plan for pre-disaster funding and to be developed at the time for post-disaster funding as part of disaster specific implementation strategies. Consistent with the desire for increased quality, the education efforts at the local level should be centered on
 - how to prepare HMGP and PDM-C grant applications; and
 - how to determine a benefit-cost ratio consistent with FEMA guidance. Over time, this will provide communities with a better measure of how likely projects are to be funded and will result in improvements in the success rates for Louisiana communities in competing nationally for predisaster mitigation funding.

4.2 Objectives for State-owned assets:

- Harden and retrofit infrastructure and critical facilities with highest vulnerability rankings.
- I. Support efforts by State agencies to identify and pursue hazard mitigation projects for at risk State-owned assets. Plan of Action D includes encouraging State agencies to ground-truth ranked critical facilities identified in Section Six of the Plan. Part of the purpose is to lead to good candidate sites for hazard mitigation projects. OHSEP will also work with these agencies to encourage them to set priorities for hazard mitigation actions beyond simply choosing the sites with the highest potential losses per the Plan methodology include:
 - Look at the University of New Orleans results and combine with the state building data per the Facilities
 Management database to determine where state buildings occur within clusters of repetitive loss
 properties.
 - Pursue hardening and retrofitting of critical facilities south of I-10 as the highest priority.

Other related work efforts by OHSEP that should be considered as part of this Plan of Action include:

- Continue work to coordinate this Plan's recommendations with the EOP update;
- Provide support for meeting the State's Continuity of Operations Planning (COOP) requirement; and
- Pursue cross-training arrangements and Memoranda of Understanding with other agencies and/or states to provide assistance in the wake of disasters.
- Help state agencies prepare HMGP and PDM planning grant applications.

8.4 Evaluation of Mitigation Actions

As noted in Section 8.3, the contents of the Mitigation Plans of Action are activity based as opposed to hard projects. As a result, evaluating the actions in terms of the DMA 2000 requirements of cost effectiveness, environmental soundness and technical feasibility was not practical. However, these actions were evaluated in terms of identifying:

- Responsible organizations and staff members;
- Supporting organizations
- Required versus available resources for staff and funding;
- Overall time commitment; and
- Any prerequisites that need to be in place for the plan to proceed.

Table 8-3: Evaluation of Mitigation Actions

Plan of Action A: Statewide Outreach and Education

Goal / Objective addressed	Goal 1. / Objective 1.1						
Summary Description	Define and support implementation of a public outreach and education program.						
Hazard(s) addressed	All						
Responsible Organization / Staff	OHSEP / SHMO						
Supporting Organization(s) ²⁹	SHMT, SHMPC, Governor's Office						
Staffing Requirements per year (average over the life of the Plan ³⁰	0.125 FTE						
	Are staff available at present: ☐ Yes ☐ No						
	If no, what are the steps that must be undertaken to increase staffing levels?						
	Open positions in OHSEP Disaster Recovery Division must be filled and then staff must be trained for their responsibilities and the operational procedures of OHSEP.						
Estimated Cost (if applicable)	Graphic production services \$ 5,000.						
	Printing for outreach materials \$ 5,000.						
Funding Source	Reserve Fund ³¹						
	Is funding in place: ☐ Yes ☐ No						
	If no, what are the steps that must be undertaken to secure funding?						
	Reserve Fund designations must be made as funds become available through hazard mitigation program funding notifications.						
Timeframe	Long term						
Prerequisite	Implementation of OHSEP staffing plan (per Volumes III and IV of the State of Louisiana Hazard Mitigation Strategy)						

²⁹ Designations of supporting organizations other than SHMT and the SHMPC for all Plans of Action should be considered tentative pending confirmation of available staff and level of interest among indicated agencies.

³⁰ Staffing Requirements for all Action Plans sum up to 2.0 FTEs. This is based on an assumption that of the 14 FTE staffing plan for OHSEP (see Volumes III and IV), for the next three years,

 ⁴ FTEs will be entirely dedicated to addressing grant administrative issues; and

^{• 80%} of the time for the remaining 10 FTEs will also be dedicated to grant administration duties.

³¹ Volumes III and IV of the State of Louisiana Hazard Mitigation Strategy detail the steps involved in designating and using a "Reserve Fund" from hazard mitigation grant funds for capital costs related to the implementation of the State Hazard Mitigation Plan.

Plan of Action B: Outreach and Education for State Agencies

Goal / Objective addressed	Goal 1. / Objective 1.2
Summary Description	Develop and implement an "internal" state agency mitigation information sharing program.
Hazard(s) addressed	All
Responsible Organization / Staff	OHSEP / SHMO
Supporting Organization(s)	SHMT, SHMPC, Governor's Office
Staffing Requirements per year (average over the life of the Plan	0.125 FTE
	Are staff available at present:
Estimated Cost (if applicable)	Graphic production services \$ 2,000. Printing for outreach materials \$ 2,000.
Funding Source	Reserve Fund
	Is funding in place:
Timeframe	Long term
Prerequisite	Implementation of OHSEP staffing plan

Plan of Action C: Statewide Data-Related Efforts

Goal / Objective addressed	Goal 2. / Objective 2.1							
Summary Description	Support implementation of a coordinated approach to statewide data collection, use and sharing.							
Hazard(s) addressed	All							
Responsible Organization / Staff	OHSEP / SHMO							
Supporting Organization(s)	SHMT, SHMPC, State Agencies (as listed in Volume II, Appendix C that were ontacted during the development of the Plan)							
Staffing Requirements per year (average over the life of the Plan	0.125 FTE							
	Are staff available at present: ☐ Yes ☐ No If no, what are the steps that must be undertaken to increase staffing levels? (same response as Plan of Action A)							
Estimated Cost (if applicable)	No capital costs are anticipated; only identified staff requirements are needed							
Funding Source	General operating funds for OHSEP							
	Is funding in place: ☑ Yes ☐ No							
Timeframe	Intermediate							
Prerequisite	Implementation of OHSEP staffing plan (per Volume IV)							

Plan of Action D: Data-Related Efforts for State Agencies

Goal / Objective addressed	Goal 2. / Objective 2.2							
Summary Description	Support implementation of a coordinated approach to data collection, use and sharing for State Agencies.							
Hazard(s) addressed	All							
Responsible Organization / Staff	OHSEP / SHMO							
Supporting Organization(s)	SHMT, SHMPC, Department of Administration, LAGISC, State Agencies (as isted in Volume II, Appendix C that were contacted during the development of he Plan)							
Staffing Requirements per year (average over the life of the Plan	0.125 FTE							
	Are staff available at present: ☐ Yes ☑ No If no, what are the steps that must be undertaken to increase staffing levels? (same response as Plan of Action A)							
Estimated Cost (if applicable)	No capital costs are anticipated; only identified staff requirements are needed							
Funding Source	General operating funds for OHSEP							
	Is funding in place: ☑ Yes ☐ No							
Timeframe	Intermediate							
Prerequisite	Implementation of OHSEP staffing plan (per Volume IV)							

Plan of Action E: Supporting Local Hazard Mitigation Planning

Goal / Objective addressed	Goal 3. / Objective 3.1						
Summary Description	Provide technical support to local communities and parishes for on-going and continuing local mitigation planning efforts.						
Hazard(s) addressed	All						
Responsible Organization / Staff	OHSEP / SHMO						
Supporting Organization(s)	SHMT, SHMPC						
Staffing Requirements per year (average over the life of the Plan	0.25 FTE						
	Are staff available at present: ☐ Yes ☑ No If no, what are the steps that must be undertaken to increase staffing levels? (same response as Plan of Action A)						
Estimated Cost (if applicable)	No capital costs are anticipated; only identified staff requirements are needed						
Funding Source	General operating funds for OHSEP						
	Is funding in place: ☑ Yes ☐ No						
Timeframe	Long-term						
Prerequisite	Implementation of OHSEP staffing plan (per Volume IV)						

Plan of Action F: State Agency Hazard Mitigation Planning

Goal / Objective addressed	Goal 3. / Objective 3.2						
Summary Description	Provide technical support to state agencies for on-going and continuing mitigation planning.						
Hazard(s) addressed	All						
Responsible Organization / Staff	OHSEP / SHMO						
Supporting Organization(s)	SHMT, SHMPC, State Agencies (as listed in Volume II, Appendix C that were contacted during the development of the Plan)						
Staffing Requirements per year (average over the life of the Plan	0.125 FTE						
	Are staff available at present: ☐ Yes ☐ No If no, what are the steps that must be undertaken to increase staffing levels? (same response as Plan of Action A)						
Estimated Cost (if applicable)	No capital costs are anticipated; only identified staff requirements are needed						
Funding Source	General operating funds for OHSEP						
	Is funding in place: ☑ Yes ☐ No						
Timeframe	Long term						
Prerequisite	Implementation of OHSEP staffing plan (per Volume IV)						

Plan of Action G: Technical Assistance for Construction Projects

Goal / Objective addressed	Goal 3. / Objective 3.3							
Summary Description	Support adoption, implementation and enforcement of higher regulatory standards at the local community and parish level.							
Hazard(s) addressed	All with priority for flood / repetitive loss mitigation projects							
Responsible Organization / Staff	OHSEP / SHMO							
Supporting Organization(s)	SHMT, SHMPC, DOTD, State Fire Marshall's Office							
Staffing Requirements per year (average over the life of the Plan	0.125 FTE							
	Are staff available at present: ☐ Yes ☑ No If no, what are the steps that must be undertaken to increase staffing levels? (same response as Plan of Action A)							
Estimated Cost (if applicable)	No capital costs are anticipated; only identified staff requirements are needed							
Funding Source	General operating funds for OHSEP							
	Is funding in place: ☑ Yes ☐ No							
Timeframe	Long term							
Prerequisite	Implementation of OHSEP staffing plan (per Volume IV)							

Plan of Action H: Identifying Cost Effective Projects with Communities and Parishes

Goal / Objective addressed	Goal 4. / Objective 4.1							
Summary Description	Work with communities, parishes and state agencies to identify, fund and implement cost effective projects.							
Hazard(s) addressed	All with priority for flood / repetitive loss mitigation projects							
Responsible Organization / Staff	OHSEP / SHMO							
Supporting Organization(s)	SHMT, SHMPC							
Staffing Requirements per year (average over the life of the Plan	0.75 FTE							
	Are staff available at present:							
Estimated Cost (if applicable)	No capital costs are anticipated; only identified staff requirements are needed							
Funding Source	General operating funds for OHSEP							
	Is funding in place: ☑ Yes ☐ No							
Timeframe	Long term							
Prerequisite	Implementation of OHSEP staffing plan (per Volume IV)							

Plan of Action I: Identifying Cost Effective Projects with State Agencies

Goal / Objective addressed	Goal 4. / Objective 4.2							
Summary Description	Identify and pursue hazard mitigation projects for at risk State-owned assets							
Hazard(s) addressed	All with priority for flood / repetitive loss mitigation projects							
Responsible Organization / Staff	OHSEP / SHMO							
Supporting Organization(s)	SHMT, SHMPC, State Agencies (as listed in Volume II, Appendix C that were contacted during the development of the Plan)							
Staffing Requirements per year (average over the life of the Plan	0.25 FTE							
	Are staff available at present: ☐ Yes ☐ No If no, what are the steps that must be undertaken to increase staffing levels? (same response as Plan of Action A)							
Estimated Cost (if applicable)	No capital costs are anticipated; only identified staff requirements are needed							
Funding Source	General operating funds for OHSEP							
	Is funding in place: ☑ Yes ☐ No							
Timeframe	Long term							
Prerequisite	Implementation of OHSEP staffing plan (per Volume IV)							

Table 8-4: Summary Evaluation of Mitigation Action Items

Action Items	Sta	ffing in place?32	Funding in place?	Prerequisites in place?
A. Public Outreach and Educa Program	ation	No	No	No
B. State Agency Outreach and Education Program	t	No	No	No
C. State-wide Data Enhancem Efforts	ent	No	Yes	No
D. Data-related Efforts for Sta Agencies	te	No	Yes	No
E. Local Hazard Mitigation Pla Support	anning	No	Yes	No
F. State Agency Hazard Mitiga Planning Support	ation	No	Yes	No
G. Technical Assistance for Construction Projects		No	Yes	No
H. Identifying Cost Effective F with Communities and Par		No	Yes	No
I. Identifying Cost Effective F with State Agencies	Projects	No	Yes	No

³² As of February 22, 2005, approval for funding the full OHSEP staffing plan is in place but several positions need to be filled. However, it is anticipated that all positions will be filled within the first three months of the time period covered by this Plan, i.e., May through July 2005.

8.5 Prioritization of Mitigation Actions

As noted at the beginning of Section 8.3, the list of identified mitigation actions is much more extensive than will be attainable in three years. Prioritization was necessary to make it clear which actions are either fundamentally more important than others or which actions need to precede others for progress to occur.

Two important observations can be made from the evaluation of proposed actions in the preceding section that are reflected in the priorities for mitigation actions. There is a need for increased staff and stable funding at OHSEP and the State in general to provide technical support, meet administrative requirements for grant programs, ensure that technical aspects of the regulations governing the grant programs are adequately and consistently addressed, and to fund mitigation projects. Therefore, in very general terms, the priorities for the Plan are based on first addressing mitigation actions related to the non-construction (or programmatic) aspects of the Plan and then focusing attention increasingly on construction activities. The key programmatic actions include:

- add positions and/or provide training for full-time staff dedicated to the implementation of the recommendations in this Plan within OHSEP and other agencies as necessary...
- complete current round of hazard mitigation planning at the state and local levels...
- continue OHSEP improvements in administration of existing mitigation programs...
- increase local community, parish, and state agency awareness, data and capabilities...

...which will in turn yield more effective hazard mitigation project applications and implementation.

The specific order and sequencing of action items to be implemented as a result of this Plan over the next three years are identified in the following tentative timetable.

Tentative Timetable

	Plan Year One				F	Plan Year Two				Plan Year Three			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
A. Public Outreach and Education Program													
A.i. Staffing plan													
A.ii. Identify existing resources/programs													
A.iii. Create OHSEP tools													
A.iv. Solicit support and participation													
A.v. Common message													
A.vi. Develop/distribute materials													
A.vii.Feedback													
B. State Agency Outreach and Education Program													
B.i. Staffing plan													
B.ii. Solicit and secure participation													
B.iii. Distribute risk assessment results													
B.iv. Encourage planning integration													

		Plan Year One				Plan Year Two				Plan Year Three			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
C.	State-wide Data Enhancement Efforts												
C.i.	Staffing plan												
C.ii.	Identify other available data												
C.iii	. Ground-truthing												
C.iv	. Training												
C.v.	Integrate local risk assessment data												
C.vi	. Improved data for State Plan												
D.	Data-related Efforts for State Agencies												
D.i.	Staffing plan												
D.ii.	Ground-truthing												
D.iii	. Central data repository												
E.	Local Hazard Mitigation Planning Support												
E.i.	Plan reviews and technical support												
E.ii.	Additional local plans												
E.iii	Support plan maintenance process												
E.iv	. Support NFIP participation												
F.	State Agency Hazard Mitigation Planning Support												
F.i.	Training and technical support												
F.ii.	State Hazard Mitigation Fund												
F.iii	Reserve Fund												
G.	Technical Assistance for Construction Projects												
G.i.	Higher regulatory standards												
G.ii.	State Building Code												
H.	Identifying Cost Effective Projects with Communities and Parishes												
H.i.	Best practices documentation												
H.ii.	Best practices training												
l.	Identifying Cost Effective Projects with State Agencies												

Legend

Initial / Concentrated Efforts

Sustained / Intermittent Efforts

8.6 Funding Sources

As noted above, the Mitigation Action Plan is focused on the efforts to be undertaken by the Disaster Recovery Division of OHSEP. Most of the funding commitment needed is for staffing positions and the full compliment of the OHSEP staffing plan has been authorized. Funding for the staff commitments will come from the general operating funds of OHSEP.

It is worth noting that currently, OHSEP has an overall annual operating budget of approximately \$3,000,000. Of this total, \$2,100,000 comes from federal grant programs (as technical assistance, management and administrative costs) and \$900,000 comes from state funding.

All capital costs or outside consulting services to support the implementation of the Plan will be derived from federal funding. This includes set-asides of HMGP funding as it becomes available as part of the "Reserve Fund" (see Action Item F.iii. on page I-156). Volumes III and IV of the State of Louisiana Hazard Mitigation Strategy, i.e., the Program and Administrative Guidelines and Procedures respectively, describe the process the SHMT will use to develop an implementation strategy for each notification of available funds under HMGP. As part of these implementation strategies, the SHMT can elect to set aside, or reserve, a portion of the available funds to support the specific recommendations in the Plan (within the project eligibility guidelines for HMGP and subject to the approval by FEMA Region VI on a case-by-case basis). These reserved funds would not be available for project applications and therefore, it is envisioned that the Reserve Fund set-asides will be limited to larger disaster declarations and notifications of available HMGP funding.